

## ABSTRACT OF THE DISCLOSURE

A plurality of wear-resistant electrically conductive circular slip-rings on a rotor, each electrically conductive circular slip-ring having a circular, v-shaped, outer surface and a circular, v-shaped, ion-accelerated, wear-resistant, electrically conductive coating, having a resistivity of less than  $10^{-4}$  Ohm-cm, on the circular, v-shaped, outer surface of each electrically conductive circular slip-ring, each circular, v-shaped, ion-accelerated, wear-resistant, electrically conductive coating containing simultaneously ion deposited, contiguous, metal-ion-accelerated metal atoms and carbon-ion-accelerated diamond-like carbon atoms.